NL

EXPRESS MAIL - RRR

November 10, 1989

Director, Waste Management Division
U.S. Environmental Protection Agency
Region V
230 S. Dearborn Street
Chicago, Illinois 60604
Attn: Mr. Brad Bradley (5HE-12)

Director, Illinois Environmental
Protection Agency
2200 Churchill Road
Springfield, Illinois 62706
Attn: Mr. Ken M. Miller

Re: Taracorp Site
Granite City, Illinois

Dear Messrs. Bradley and Miller:

This letter responds to Mr. Bradley's October 3, 1989 correspondence transmitting the Agencies' comments on the Draft Preliminary Feasibility Study Report ("DPFSR") submitted by O'Brien & Gere Engineers ("OBG") on behalf of NL Industries, Inc. ("NL"). In accordance with paragraph 16 of the Agreement and Administrative Order by Consent (hereinafter, the "Agreement"), NL sets forth herein the reasons why the DPFSR, as originally transmitted, should be approved. Further, in some instances, NL submits revisions in accordance with the October 3, 1989 comments.

At the outset, we note that paragraph 15(a) of the Agreement requires the Agency to give NL notice that is written and specific if the DPFSR is not acceptable because it does not conform with the provisions of the Agreement, or does not comply with applicable regulations. The Agencies' comments fall far short of the requisite specificity, and do not set forth any rationale underlying the comments.

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The most significant issue raised by the comments is the appropriate level of lead-in-soil in residential areas after cleanup takes place. NL's position on this issue was developed in accordance with proven scientific methodology and applicable U.S. EPA guidance. By way of background, the DPFSR now at issue builds upon NL's prior studies of the Taracorp Site. NL's consistent position throughout the performance of the Agreement has been that the Remedial Investigation Scope of Work clearly mandated the performance of a site-specific risk assessment. In pertinent part, the Scope of Work states that:

> [e]mphasis should be placed on describing the threat or potential threat to public health, including threat to the public from inhalation of airborne particulates from the entire plant site and the waste storage piles and other open areas. Available previous sampling, blood testing, and health studies should be used in this evaluation.

Id. at 5. Indeed, the U.S. EPA required that the exposure assessment "analyze the contribution of discrete sources of exposure to the overall assessment so as to provide an accountability analysis of the different sources." Id. at 11. Plainly, this approach is completely consistent with the U.S. EPA's guidance for performing Remedial Investigation and Feasibility Studies. In the absence of "applicable or relevant requirements" ("ARAR's"), U.S. EPA guidance expressly endorses risk assessments as the means of insuring that remedial actions are adequately protective of human health and the environment.

Recently, the U.S. EPA furnished NL with "Interim Guidance on Establishing Soil Lead Cleanup Levels at Superfund Sites". A site specific Risk Assessment, such as that submitted by NL, is expressly authorized by said guidance. Moreover, NL's remedial proposal as set forth in the DPFSR is within the recommended safe range of 500 to 1000 parts per million lead-in-soil, with flexibility to be exercised on a site-by-site basis at either end of that range.

Thus, in accordance with the mutual obligations set forth in the Agreement, NL performed a scientifically sound risk assessment as part of the RI. In addition, NL voluntarily subjected its risk assessment to the rigorous scrutiny of a peer review. See, December, 1988 report from Dr. J. Bern of IT Corporation, to the U.S. EPA.

In contrast to NL's rigorous scientific approach, EPA has unilaterally and arbitrarily asserted that a cleanup level of 500 parts per million of lead-in-soil is applicable. This assertion is without scientific basis and has been put forth without explanation. Nonetheless, we have carefully considered the October 3, 1989 comments, as well as the Interim Guidance attached thereto, and have modified certain aspects of the proposal accordingly. The central feature of the modifications is that lead-in-soil in residential areas will be cleaned up to a level of 1000 parts per million.

Finally, please be advised that Paragraph 16 of the Agreement expressly provides NL with the right to respond to EPA's comments. In the event of continued disagreement, paragraph 17 and 18 of the Agreement further provide additional time to resolve differences. We look forward to meeting with you at 11:00 a.m. on Tuesday, November 14, 1989 to discuss these matters.

Very truly yours,

Stephen W. Holt
Principal Environmental Engineer

SWH/lmn
Enclosure

cc: Deputy Chief, Environmental
Control Division
Illinois Attorney General's Office

RESPONSE TO OCTOBER 3, 1989 COMMENTS BY
U.S. ENVIRONMENTAL PROTECTION AGENCY &
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
ON THE DRAFT PRELIMINARY FEASIBILITY STUDY REPORT
FOR THE TARACORP SITE
GRANITE CITY, ILLINOIS

1.(a) The use of 500 mg/kg as a cleanup objective is inconsistent with the site specific risk assessment and an independent toxicological assessment presented to the agencies in December 1988. A cleanup objective of 1500 mg/kg (calculated during the site specific risk assessment using worst case assumptions) is adequately protective of human health and the environment. Indeed, the recently published USEPA OSWER directive #935.54-02 indicated that values higher than 1000 mg/kg may be appropriate on a site specific basis. The approach used was consistent with EPA guidance for conducting an RI/FS.

To compromise, we now propose a cleanup objective of 1000 mg/kg for all residential properties. Enclosed is a series of 5 prints which illustrate modified soil remediation areas. These areas encircle residential properties with soil lead concentrations in excess of 1000 mg/kg.

In response to the comment that excavation to a depth of three inches is not adequate, we now propose that the depth of excavation in remediation areas be determined based on supplemental sampling to be conducted during the preliminary remedial design phase.

(b) The use of 1000 mg/kg as a cleanup objective in industrial areas is not justified by the OSWER directive or the site specific risk assessment. The use of the OSWER value "...is to be followed when the current or predicted land use is residential."

We now propose the use of the EP toxicity level of 5 mg/l of lead for soils as a response objective for commercial and industrial property. This would be consistent with the EPA test for hazardous waste and the rationale for identifying when materials should be managed to protect groundwater under 40 CFR 261. Supplemental sampling proposed for the preliminary design phase should be used to define industrial/commercial areas where this response objective is not being met.

(c) For alternatives which expose soil beneath the pile, response objectives for these soils will be the same as for other industrial properties. The Attachment I to the comment letter "cleanup criteria" for soil beneath the Taracorp Pile does not appear to be consistent with IEPA or USEPA approaches to defining leachability.

2. The Figures have been revised to reflect the proposed change in remedial objectives. These areas are based on maintaining a residential property soil lead concentration of less than 1000 mg/kg. It is unnecessary to establish different criteria for Venice or Eagle Park Areas.

3. Three additional downgradient deep wells have been included in the groundwater monitoring program. Upon completion of installation, a total of seven deep wells will be located hydraulically downgradient of the site. Upgradient deep groundwater quality is adequately characterized by monitoring well 110, therefore, an additional upgradient well was not included in the Revised Report. The seventeen wells surrounding the site adequately address the RCRA requirements for groundwater monitoring; additional shallow wells have not been included in the Revised Report.

   A duration of 30 years for the monitoring program and the requirement for a groundwater remediation contingency plan has been adopted. Groundwater analysis includes parameters identified in the waste analyses.

4. The development of each alternative has been expanded to include discussion of dust monitoring and control measures in addition to the use of the IEPA stations. Further discussion is included in the detailed evaluation of alternatives.

   The second paragraph of the comment has been inserted into the report as Exhibit B and is referenced in the text.

5. 35 IAC Part 728 has been included with the ARARs for Alternatives F and G.

6. Alternative C will be retained. It is conceptually different from Alternative D. To delete an entire Alternative would require substantial revisions which would delay submission of the Report.

7. 35 IAC Part 724 Subparts L and F have been included with ARARs for Alternatives F and G. Interim Status (Part 725) applies to Alternatives A-E due to the interim status of the piles. 35 IAC Part 724 Subpart J has been included with ARARs for Alternative F.

<u>Specific</u>

1. Text revised as requested.

2. Sentence deleted.

3. Task 13e of the Work Plan requires the recommendation of an alternative. The recommendation has been modified slightly based on other comments.

4. Text revised as requested. Additional sentence added "The results of the test suggest that soils with equivalent or lesser lead concentrations are also not characteristic hazardous wastes under 40 CFR 261."

5. Text revised as requested; USEPA groundwater protection strategy deleted.

6. Text revised as requested.

7. Remedial Action Objectives is not an appropriate location for defining the scope of groundwater remediation, therefore, no change to text made.

8. Text revised as requested.

9. Second full paragraph on page 49 was revised as follows:
... "present usage.

Excavated soils from Areas 1, 2 and 3 would be transported to a non-RCRA landfill. Such disposal is based on an EP toxicity test conducted on a soil sample which contained a total lead concentration of 3110 mg/kg. (See Section 1.3.4.) The test demonstrated that the lead in the soil sample was not extractable, and therefore, not a characteristic hazardous waste. During the preliminary remedial design, additional EP toxicity testing would be conducted on soils from Areas 2 and 3 to provide additional verification that these soils are not characteristic hazardous wastes. If EP toxicity testing demonstrates that the soils are characteristic hazardous wastes, they will be managed accordingly.

The groundwater..."

10. Text revised as follows:
    (a) Sentence inserted in text: "The use of sod over waste materials at Venice Alleys would eliminate the potential for direct contact with waste materials providing such cover is properly maintained."
    (b) "effectively" deleted.

11. No change to text required. Removal of waste materials and soils which do not meet the response objectives will eliminate the potential for unacceptable direct contact in these areas.

12. Calculations provided as Appendix B.

13. No change to text required. Institutional controls would be very effective in limiting direct contact with waste materials and contaminated soils, where implemented. Paragraph contains appropriate qualifications to justify statement as written.

14. Text revised as follows:
    (a) "groundwater" deleted from line 3, Section 4.3.1.
    (b) Sentence inserted into line 5, Section 4.3.1 "Contaminant migration to groundwater would be effectively reduced as percolation through the waste materials would be reduced by 99.99%."

15. Text revised as follows:
    (a) "Long term" replaced by "Permanent". The expression "short term" implies the remedial implementation (construction) time period.

16. No change to text required. If the cover is properly maintained, human health would be protected.

17. No change to text required. In our judgment, excellent correctly describes the degree of control.

18. No change to text required. This section thoroughly discusses minimization of groundwater releases.

19. No change to text required. This section thoroughly discusses minimization of groundwater releases.

20. No change to text required. Capping the Taracorp pile will limit migration of metals to groundwater. The absence of measurable lead contamination of groundwater after 50 years of no control suggests that 99.99% control will limit migration of metals to groundwater. Statement is correct as written.

21. Appendix A has been expanded.

22. No change to text required. Sentence qualified by "Upon completion of remediation,". Section further discusses long term maintenance and integrity issues, and evaluates the alternative as being fair in the remote areas.

23. No change to text required. The process option includes 3 inches of asphalt.

24. Discussion of mobility reduction through containment shifted to long term effectiveness sections.

25. No change to text required. Reduction achieved by recycling drosses.

26. No change to text required. The estimates are reasonable considering size and scope of project. Access to properties, public health and safety, construction permits, and other issues must be considered in establishing projected schedules.

27. In our opinion, no change to text required.

28. Text revised as requested.

29. In our opinion, no change to text required.

30. Text revised as follows:

    Location Specific ARARs

    The following location specific ARARs would apply to Alternative E:

    Illinois Revised Statutes: Chapter 19; Paragraphs 65f and 65g: Flood Plains Construction Permits.

    A construction permit would be required to locate the landfill as shown on Figure 10.

31. Text revised as follows: "... materials to precipitation, and water used for dust suppression during extensive excavation would generate significant quantities of runoff. Appropriate runoff collection and control measures..."

32. First sentence of 4.4.7 deleted. Second sentence revised as follows: "Total capital costs for Alternative C are..." Similar revision made for all other alternatives.

33. Text revised as requested.

34. Text revised as follows:

    Location Specific ARARs

    The following location specific ARARs would apply to Alternative F:

    Illinois Revised Statutes: Chapter 19; Paragraphs 65f and 65g: Flood Plains Construction Permits.

    A construction permit would be required to locate the landfill as shown on Figure 10.

35. Text discrepancy corrected.

36. Text discrepancy corrected.

37. Text revised as requested.

38. Text revised as requested.

39. No change to text required to be technically correct. Estimated masses are provided for a reader to determine what adverb to apply.

40. Text revised as requested.

41. Text revised as follows: "Dust control measures may not adequately eliminate the risk of short term impact; dust control by water suppression would be expected to generate large quantities of runoff which would require management."

42. Text revised as follows: "Conventional measures may not be effective for this type of situation."

43. Text revised as requested.

44. Last sentence of second full paragraph deleted. Remaining text retained, Alternative D recommended. Task 13e of the Work Plan requires the recommendation of an alternative.

45. Table revised as requested.

46. The comment does not require any change in text, only acknowledgement that configuration may be modified during preliminary design based on property boundaries and technology limitations.